

REMARKS

Claims 2-6 are in the case. These claims stand rejected under 35 USC 103(a) over Freeman, US Patent No. 4,862,399 and English, ADA 95: The Craft of Object-Oriented Programming, "Glossary". It is respectfully submitted that these claims should be allowed thereover.

Claim 2 is set out in full for convenient reference:

2. A method for use in verification of a device comprising:
providing a plurality of packet classes;
providing a flag, which may be of a first or a second state, for each of the plurality of packet classes;
generating a packet;
if the flag of the packet class of the generated packet is in the first state, testing the device;
if the flag of the packet class of the generated packet is in the first state, changing the flag of the packet class of the generated packet to the second state.

The Examiner states that Freeman fails to disclose a "flag, having two states, as indicators, and changing the state of the flag". In fact, this is a recognition that a substantial portion of claim 2 is not disclosed by Freeman, i.e.,

providing a flag, which may be of a first or a second state, for each of the plurality of packet classes;
generating a packet;
if the flag of the packet class of the generated packet is in the first state, testing the device;
if the flag of the packet class of the generated packet is in the first state, changing the flag of the packet class of the generated packet to the second state. (underlining added by applicants for emphasis and indicating portions of claim 2 not disclosed by Freeman)

The "Glossary" cited by the Examiner merely gives a definition of a "flag", i.e., a Boolean value that can be 'set' to True or 'Reset' to false.

The Examiner states:

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Freeman by using the features, as taught by English in order to provide an means/programming technique (using flags) which indicates a certain state of a program/variables with minimal storage (memory) use. Through the use of flags a system/program (like the one of Freeman) can use known flags to indicate a certain property/state of either the program/variable with minimal memory and processing resources.

Furthermore, each of the claimed elements was known in the art, and a person of ordinary skill in the art could have combine the use of flags into the program/method of Freeman each element would have performed the same function as it did separately. The use of flags in the Freeman system would not change the operation of the Freeman system, as the use of flags is merely using variables and a program that indicate a certain state and one of ordinary skill in the art would have recognized that the results of the combination would have been predictable.

As is well understood, the Examiner must provide an apparent reason to combine the known elements in the fashion claimed and must articulate this reasoning with a rational underpinning to support a conclusion of obviousness. As stated in *KSR International Co. v. Teleflex, Inc.* (U.S. Supreme Court), 550 U.S. ____ (2007):

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) (“R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some

articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

The "reason with a rational underpinning" submitted by the Examiner is that the incorporation of the flags of English in Freeman would provide "minimal storage use" and "minimal memory and processing resources" in the Freeman system. Applicants respectfully submit that inclusion of a flag system in Freeman as suggested by the Examiner is not indicative of "minimal storage use" and "minimal memory and processing resources" as compared to Freeman itself. Freeman has its own approach as stated in column 10 at lines 26 - 39:

What this means is that suppose a pattern $P_{\text{sub}}.C$ at the chip level (applied to chip input pins) produces a pattern $P_{\text{sub}}.B$ at a block level. Pattern P_C is then compared to all other chip level tests patterns P_C' for all blocks. If another chip level test pattern P_C'' is found which will produce a redundant pattern P_B for the remaining block level tests of one or more partitioned blocks, then such additional pattern P_C'' is redundant and can be discarded from the chip level testset. This procedure is repeated for all block level tests until the test pattern P_C contains only those patterns necessary to test all blocks. This results in an efficient testset which exhaustively tests the chip in practical way for use in a factory environment.

In fact, contrary to the Examiner's statement, discarding of redundant patterns (as undertaken in Freeman) apparently uses less "storage" and less "memory and processing resources" than if the flag system of English were incorporated, which would result in data packets retained with an accompanying set flag rather than discarded. Thus, it is respectfully submitted that the position of the Examiner does not set forth a "rational underpinning" for making the changes as suggested by the Examiner.

As set forth above, the "Glossary" cited by the Examiner merely gives a definition of a "flag", i.e., a Boolean value that can be 'set' to True or 'Reset' to false, and provides no "rational reason" (see KSR International Co. v. Teleflex above) for the change suggested by the Examiner.

Furthermore, as stated in MPEP Section 2143.01:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007)

The Examiner states in the Response to Arguments:

The applicant specifically points out that Freeman finds redundant patterns and discards them, further concluding that less storage is used than “the present flag use, wherein data packets are retained with an accompanying set flag that discarded”. It appears that in the quoted section the applicant is arguing that those features are not disclosed in the combination of Freeman and D1 (“Glossary”). If this is the case, it is pointed out that such limitations are not recited in claim 2. Claim 2 does include limitations where packets are retained and not discarded.

Applicants are not arguing that “those features are not disclosed in the combination of Freeman and D1”. Applicants are arguing that this is evidence that the references would not be combined as suggested by the Examiner, as no rational underpinning for making such a combination exists.

The Examiner further states in the Response to Arguments:

In response to applicant’s argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., “the present flag use, wherein data packages are retained with an accompanying set flag rather than discarded”) are not recited in the rejected claim(s).

Applicants are not arguing based on features recited in claims. Rather, applicants are arguing that the references would not be combined as suggested by the Examiner, as no rational underpinning for making such a combination exists.

The Examiner further states in the Response to Arguments:

The possibility that such a pattern or testcase is later discarded is moot, since some type of indication/variable is present and associated with the pattern or testcase.

Applicants respectfully submit that this is a conclusion of the Examiner based on no evidence.

Further on in MPEP Section 2143.01:

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)

Applicants respectfully submit that the changes to Freeman proposed by the Examiner would indeed “change the principle of operation” of Freeman, from discarding data to retaining and marking such data (see above discussion).

The Examiner states:

A combination/modification using a flag (as taught by D1) would not change the principle of operation of Freeman and is even suggested/implied by the use of the checkmarks in figure 4 of Freeman.

The checkmarks of figure 4 of Freeman indicate detection of faults using patterns that may be useful in detecting a fault. The remaining patterns which are of no interest are discarded (Freeman, column 10, lines 6-10). This clearly does not in any way suggest the use of flags in Freeman so as to meet the limitations of claim 2.

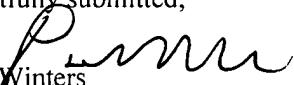


It is therefore respectfully submitted that it would not be obvious to combine the disclosure of Freeman with the disclosure of "Glossary" as suggested by the Examiner, and that claims 2 - 6 should be allowed.

In regard to claims 3, 4, 5 and 6 each of these claims includes the limitation of not testing the device if the flag of the packet class is in the second state. To repeat, the above analysis with regard to obviousness re claim 2 applies in favor of claims 3, 4, 5 and 6. Furthermore, in Freeman, testing or not testing of the device is not dependent on the state of a flag of a packet class as called for in these claims. Rather, testing of the device occurs for all patterns not discarded, i.e., testing is dependent on whether or not the pattern exists. Thus, even if the disclosures were combined as suggested by the Examiner, the limitations of claims 3, 4, 5 and 6 would not be met. Claims 3, 4, 5 and 6 are thus respectfully submitted to be allowable on this basis also.

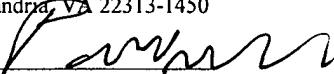
It is therefore respectfully submitted that claims 2-6 should be allowed. Reconsideration and allowance of such claims are respectfully solicited.

Respectfully submitted,


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Signature

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